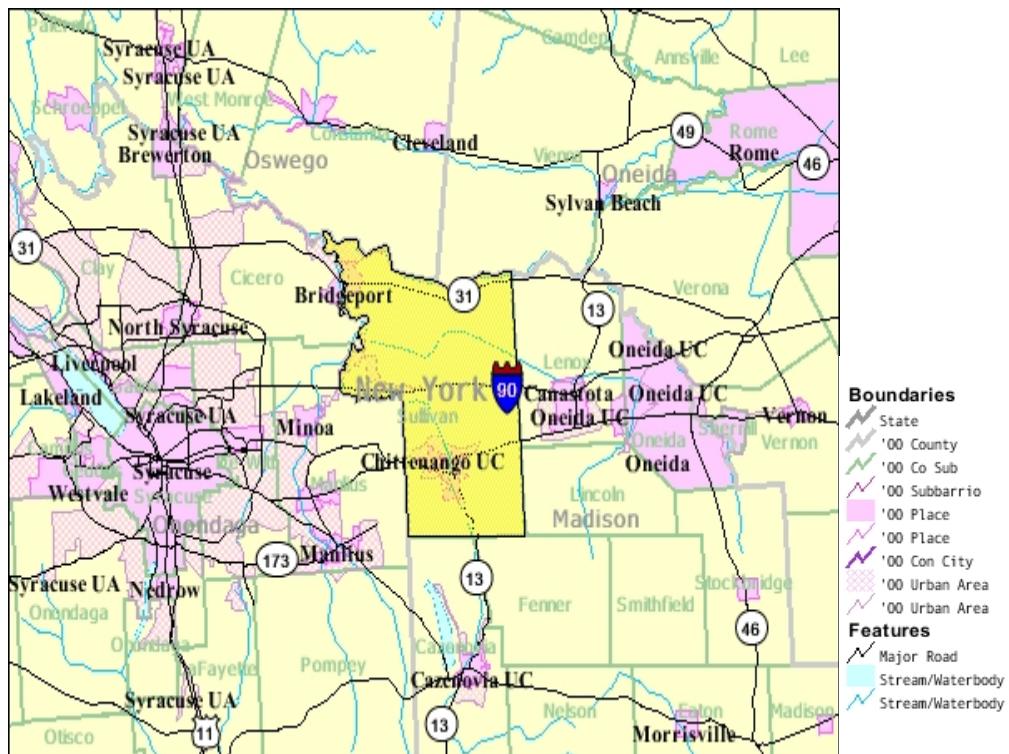


# MADISON COUNTY HAZARD MITIGATION PLAN 2016

## Town of Sullivan



Contact	Title	Phone
John Becker	Town Supervisor	(315) 687-9190
Charlotte Ferstler	Town Clerk	(315) 655-7221
Andrew Busa	Highway Superintendent	(315) 687-6031
Frank Park	Planning Board Chairman	(315) 687-6132
Phil Costanzo	Code Enforcement Officer	(315) 687-5251

### Background

According to the Year 2010 census, the Town of Sullivan is a community of 15,339 residents located just south of Oneida Lake and just east of the Madison County border with Onondaga County. 72.9% of the residents are between the ages of 18 and 65, while only 11.1% are over the age of 65 (residents). There are 6,209 housing units in the town of which 3,464 are considered single-family owner occupied homes. The village in Chittenango is located within the town limits and will be addressed in its own section of the mitigation plan. The town of Chittenango has an equalized assessed value of 540,358,433. Outside of the Village of Chittenango, the town has an equalized assessed value of 392,950,604.

### Land Use and Development Trends

The Town is seeing a decline in agriculture and an increase in residential construction. As of May 2006, 300 new housing units were planned and construction was active on 90 units. Two subdivisions were in progress including a 90 unit project by Oot Construction. In 2004, there were 50 housing starts. Though

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residential use is increasing in the Town, the number of students in the School District is actually decreasing which would infer that older people without young children are moving into the Town.

## **Assets**

Town Hall: located at 7507 Lakeport Road. A New York State Police substation is located at the north end of this building. An automatic back-up generator was recently installed.

Chittenango Fire Department: located at 417 Genesee Street. The facility is equipped with an automatic back-up generator.

North Chittenango Fire Department: located at 1699 Fyler Road. An automatic back-up generator was recently installed.

Bridgeport Fire Company: located on Route 31 east of Bridgeport Kirkville Road. The fire house has an automatic back-up generator in case of a power failure.

Town Highway Garage: located at 700 Bolivar Road. An automatic back-up generator is currently being installed at this building.

The Town Highway Department administers 100 miles of Town Road. The Town owns 9 dump trucks equipped with snowplows.

Chittenango Jr./ Sr. High School 150 East Genesee St., Chittenango 13037-1789 – This is the designated Red Cross shelter for the community. The Red Cross lists it as having capacity for 470 and states that it does not have a back-up generator or an external hook-up for a generator.

## **The Planning Process**

Steve Lorraine, Madison County SWCD, met with the Sullivan Town Council at their regular monthly meeting on 11/16/13. The Town Council requested a further clarification of FEMA programs. The Board then approved preparing a section of the mitigation plan on the Town of Sullivan. John Langey, Town Attorney, was directed to organize a committee Town Officials to work with Mr. Lorraine on collecting the needed information. On 2/18/15, Mr. Lorraine met with Attorney Langey, Supervisor John Becker, Codes Enforcement Officer Phil Costanza, and Highway Superintendent Sonny Centner at the Town Offices. The group reviewed potential problems and located them on a map supplied by Mr. Lorraine. Mr. Lorraine subsequently met with Planning Board Frank Park to review the plan and include additional concerns.

## **Public Involvement**

Two meetings were held at which members of the public were invited to provide input on the hazard mitigation planning process. These meetings were publicized in the Syracuse Post Standard, Oneida Daily Dispatch, Canastota Bee Journal, and Cazenovia Republican. No members of the public attended these meetings. One citizen did call Madison County Soil and Water Conservation District from the City of Oneida to express concerns about flooding there. As soon as the first draft of the entire plan for Madison County is finished, it will be posted on the Madison County website. All members of the public will be provided a means of providing input at that time.

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## **Input from Neighboring Communities, Agencies, Businesses, Academia, Nonprofits and Other Parties**

The following organizations and businesses have been contacted for input:

- Chittenango School District
- Gray Syracuse
- Manth-Brownell
- Central New York Coach
- Cowaselon Creek Watershed Association
- Chittenango Landing Canal Boat Museum

## **Existing Plans, Studies, Reports, and Technical Information**

- Town of Sullivan Comprehensive Plan
- Municipal Separate Stormwater Sewer System Plan for the Town of Sullivan
- Studies and Reports for the West Sullivan and East Sullivan Sewer Districts
- *Flood Insurance Study Town of Sullivan, New York Madison County, and FEMA* published October 3, 1984

## **Local Organization and Regulations**

The Town Board meets on the first Wednesday of each month at 7 PM.

The Town Planning Board meets on the second Monday of each month at 7:30 PM.

The Zoning Board of Appeals meets on the second Thursday of each month at 7:30 PM.

Chittenango Creek Logjam Clearing - The Towns of Sullivan, Cicero (Onondaga County), and Manlius (Onondaga County) have been participating in a cooperative agreement with Madison County Soil and Water Conservation District for the removal of logjams from Chittenango Creek between the New York State Thruway and Bridgeport. The purpose of this program is to increase the water carrying capacity of the creek and thereby reduce flooding. The Towns contribute a total of \$10,000 per year while the District organizes the program and hires contractors. Assemblyman Bill Magee's office contributed an additional \$10,000 at the start of the program in 1997. When the program began, there were 25 logjams in this section of the creek; 4 logjams now remain. It is estimated that, on average, one new logjam forms each year in this section of creek.. The current agreement concludes in 2006.

Tree Maintenance is performed by the Town Highway Department. Highway Superintendent Elwin Centner serves as inspector and determines which trees require pruning or removal.

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## Hazards

As part of the Madison County Comprehensive Emergency Management Plan, a Hazard Analysis was conducted using the HAZNY program with data supplied by the National Oceanic & Atmospheric Administration, and ESRI Hazards data. This HAZNY analysis identified Moderately High Danger in order from Severe Storms, Transportation Accidents, Winter Storms, Fires, and HAZMAT (in Transit). The HAZNY analysis identified Moderately Low Danger in order from Ice Storm, Terrorism, Flood, Utility Failure, Water Supply Contamination, Tornado, Oil Spill, HAZMAT (Fixed Site), Ice Jam, Infestation, Radiological (Fixed Site), Extreme Temperatures, Epidemic, Drought, and Explosion. The Madison County Hazard Mitigation Plan is required by FEMA to address natural disasters. Sections of this plan have been written on a County-wide basis for Severe Storms, Transportation Accidents, Winter Storms, Fire, Ice Storm/ Utility Failure, Flood/ Hurricane, and Tornado. The following table is used to determine whether or not the local community's hazard danger differs from the County as a whole for natural disasters and a few chosen man-made disasters. The local community can also decide whether or not a section on a particular hazard should be written specifically for that municipality.

Hazard	Madison Co. Class.	Madison Co. Ranking	Town Of Sullivan Probability Greater (G), Lesser (L) About Equal (E)	Town of Sullivan Issues Beyond County-wide Plan Yes (y), No (n)
Severe Storms	Mod. High	312.2	E	Y
Transportation Accidents	Mod. High	285.2	E	Y
Winter Storms	Mod. High	272.2	E	N
Fires	Mod. High	265.2	E	N
Ice Storms	Mod. Low	236.2	E	Y
Flood	Mod. Low	222.8	G	N
Utility Failure	Mod. Low	218.5	E	N
Tornado	Mod. Low	202.5	E	N
Ice Jam	Mod. Low	180.5	E	N
Infestation	Mod. Low	173.8	E	N
Extreme Temperatures	Mod. Low	169.8	E	N
Epidemic	Mod. Low	164.2	E	N
Drought	Mod. Low	164.2	L	N
Wildfire	Low	160.5	L	N
Wave Action	Low	159.5	G	N
Dam Failure	Low	159.2	L	N
Hurricane	Low	158.8	E	N
Earthquake	Low	150.5	E	N
Blight	Low	96.2	E	N
Landslide	Not Rated		E	N

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## Types of Mitigation Measures

This section is used to indicate the types of mitigation actions that already are in use in the Town of Sullivan.

**Prevention** - Government administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses.

	Building Code	Density Controls	Design Review Standards	Easements	Environmental Review Standards	Flood plain Development Regulations	Floodplain zoning
Sullivan Program	State BOCA Codes	No	State Health Codes Fire Codes	No	SEQR for major subdivisions	Federal flood insurance rules apply	No

Transfer of Development Rights	Hillside Development Regulations	Open Space Preservation	Performance Standards	Streambank Setback Regulations	Special Use Permits	Stormwater Management Regulations	Subdivision & Development Regulations
State & Federal Programs Available for Ag	No	Under Subdivision Rules	No	State Health Department Rules for Septic Systems	With Planning Board Approval	State Regs Apply	Planning Board Rules

**Property Protection** - Actions that involve the modification of existing buildings or structures to protect them from a hazard, or removal from the hazard area.

	Acquisition of Hazard Prone Structures	Construction of Barriers Around Structures	Elevation of Structures	Relocation Out of Hazard Areas	Structural Retrofits (e.g. floodproofing)
Sullivan Program	Condemnation in Rare Cases	No	Yes Under development Regulations	No	No

**Public Education and Awareness** - Actions to inform and educate citizens, elected officials, and property owners about the hazards and potential ways to mitigate them.

	Hazard Information Centers	Outreach Programs	Real Estate Disclosure	School-age and Adult Education Programs
Sullivan	No	Education of	State Rules Apply	No

## MADISON COUNTY HAZARD MITIGATION PLAN 2016

Program		Elected Officials to NIMS Standards		
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**Natural Resource Protection** - Actions that, in addition to minimizing hazard losses, also preserve or restore the functions of natural systems.

	Best Management Practices	Forest & Vegetation Management	Sediment & Erosion Control Regulations	Stream Corridor Management	Stream Dumping Regulations	Urban Forestry & Landscape Management	Wetlands Development Regulations & Restoration	Watershed Management
Sullivan Program	Assistance available through County SWCD	Section 319 of Forest Tax Law available through NYS DEC	State Regs for greater than 1 acre development	Logjam Clearing Program for Chittenango Creek	State Rules Apply	Town Highway Department	State & Federal Rules Apply	Oneida Lake Program

**Emergency Services** - Actions that protect people and property during and immediately after a disaster or hazard event.

	Critical Facilities Protection	Emergency Response Services	Hazard Threat Recognition	Hazard Warning Systems	Health & Safety Maintenance	Post Disaster Mitigation
Sullivan Program	No	Chittenango, North Chittenango, and Bridgeport Fire Departments; Rural Metro Ambulance; State Police, County Sheriff	MSDS Sheets on File with Fire Department	911 Center Alert System	No	Red Cross

**Structural Projects** - Actions that involve the construction of structures to reduce the impact of a hazard.

	Channel Maintenance	Dams/ Reservoirs	Levees & Floodwalls	Safe Room/ Shelter
Sullivan Program	No	No	No	Red Cross Shelters

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## **Incorporation of Hazard Mitigation Plan requirements into local planning mechanisms**

The foregoing list of existing mitigation measures and the proposed mitigation actions that follow will be considered during the writing of the Town of Sullivan Disaster Plan.

### **Mitigation Actions by Hazard**

#### **A. FLOODING**

##### **Background**

Because of its low lying topography, most of the hazards cited by local officials were associated with dangers from flooding. A large portion of the Town lies within the 100 year or 500 year floodplain.

##### **Mitigation Goals**

Minimize loss of property, risk of injury, damage to the environment, and loss of infrastructure from 500-year flooding events.

##### **Historical Events**

*April 29, 1840* - Village of Chittenango completely inundated. Dams and bridges destroyed. "Immense Damage". (Madison County Times March 28, 1958)

*March 16, 1865* - This was a major flood. Twenty bridges were swept away between Cazenovia and Chittenango. Lowlands remained flooded for days afterward. (Cazenovia Republican March 22, 1865)

*July 1897* - Farmers of Sullivan, Manlius, and Cicero were the greatest sufferers. Roads were made impassable, bridges wrecked in the Town of Manlius. Damage estimated in the hundreds of thousands of dollars. (Madison County Times July 30, 1897)

*August, 1897* - a number of farmers banded together to sue the State of New York for \$5,690, claiming that damages were due to overflow from the Erie Canal.

*December 14 & 15, 1901* - Water came through the Village of Chittenango at a depth of 2 to 3 foot and gave the flatlands north of the Village the appearance of a vast lake. (Madison County Times December 20, 1901) Following this flood, 18 claims were filed against the State from the Towns of Manlius and Chittenango for flooding caused by overflow of the Erie Canal. (Madison County Times January 24, 1902)

*July, 1905* - Fields of produce washed out, cellars filled with water. Damage to Village streets \$500. (Madison County Times July 7, 1905)

*June 11, 1917* - Water 18 inches deep on School Street in Chittenango. Most cellars in village filled with water. (Madison County Times June 15, 1917)

*March 17, 1936* - Local Roads in Bridgeport, Kirkville, Chittenango Station, and Lakeport were closed. Some farms submerged. Cellars flooded. (Madison County Times March 20, 1936)

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*February 28, 1945* - Local mail carrier reported that there was deep water over Kirkville Road. (Madison County Times March 28, 1958)

*February 1951* - Basement flooding in Chittenango left approximately 50 homes without heat. (Madison County Times February 12, 1951)

*March 16, 1971* - Water over roads of the Kirkville Bridgeport area. Black Creek, which enters Chittenango Creek about two and one half miles south of Bridgeport, was over its banks. (Madison County Times March 18, 1971)

*June 23, 1972* - \$91,000 worth of damage done to the Village of Chittenango Sewage Treatment Plant.

*April 14, 1974* - Flooding led to road closings and the flooding of many properties along Chittenango Creek. (Madison County Times April 11, 1974)

*October 17, 1977* - This flood led to the evacuation of a nursing home in Chittenango and 10 to 15 families in the village. (Oneida Daily Dispatch October 18, 1977)

*October 28, 1981* - Madison County in state of emergency. Routes 290, 173, and 5 were closed. (Syracuse Herald Journal October 29, 1981)

*April, 1993* - Because of an increase in Oneida Lake elevation, flooding occurred to residences along Hitchcock Point Road.

*January 19, 1996* - This was a large flood caused by a rain event coupled with melting snow. Damages were reported by the Madison County Highway Department, New York State Thruway Authority, Chittenango Volunteer Fire Department, and local farmers. Bridgeport-Kirkville Road was closed for a number of days because of water over the road. Residents along Marsh Mill

### **Locations Subject to Hazard**

*Chittenango Creek Outlet* - There is a substantial number of houses located along Chittenango Creek near its confluence with Oneida Lake. These properties are located within the 100 year floodplain and are influenced by high lake levels, especially during spring runoff. Some houses are located within the actual floodway for Chittenango Creek. Houses in this are not allowed to build fences or other structures that will obstruct the creek's flow.

*McGraw Road* - McGraw Road is located just north of the Village of Chittenango and is almost entirely within the 100 year floodplain. This road is closed during periods of peak runoff. No residences are affected. The road shoulder gets washed out in 3 locations during peak runoff events. The Town considers the present policy of road closure and maintenance to be satisfactory.

*Marsh Mill Road* - Marsh Mill Road is also almost entirely within the 100-year floodplain. There are many small parcels and a large amount of residential development on this road.

*Fisher Bay, Woods Road, Damon Point Road, Tyler Road* - All of these locations would benefit from the construction of sanitary sewers. Engineering studies on the cost of these sewers between Bridgeport

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and Lakeport and south along Bridgeport Kirkville Road have been conducted. Costs would be 15 million. This is a high priority for the Town of Sullivan.

## *Shackleton Point Road*

Poor drainage in this area leads to flooding during peak runoff periods.

## **Future Development in Hazard Area**

*Fisher Bay Road* – A proposed 100 unit development along Fisher Bay Road has been brought to the Planning Board but has not yet been approved.

## **Potential Losses**

*Hitchcock Point Road* – First Floor of some houses under water during flood events.

*Fisher Bay Road* – Septic systems at some houses are non-functional and overflow during flood events.

## **Mitigation Measures**

Project #	Project Name	Description	Lead Agency	Estimated Cost
T/Sullivan#1	Chittenango Creek Log-jam Clearings	The project will remove debris and logjams from approximately 10 miles of the creek extending from south of Chittenango to Oneida Lake.	Town of Sullivan Highway	\$36,000
T/Sullivan#2	Raise Elevation of Houses to Above Floodplain Elevation	This project would raise homes that have living quarters and utilities below the floodplain elevation to above floodplain elevation at an approximate cost of \$15,000.00 per location.	Town of Sullivan Highway	\$15,000 per location
T/Sullivan#3	Tributary Excavation	Excavation of the Chittenango Creek outlet into Oneida Lake will reduce the restriction as water flows into the outlet, reducing the resistance of the flow.	Town of Sullivan Highway	\$48,000
T/Sullivan#4	Elevation of Utilities for Houses along Chittenango Creek.	Raise utilities to an elevation above the 100-year floodplain.	Town of Sullivan Code Enforcement	\$5,000 per location

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Marsh Mills Road - Houses in this area need to be raised so that flood waters cannot affect utilities and living quarters. Cost would average approximately \$15,000 per house. Responsibility rests with the home owner unless new funding becomes available. This is a Low Priority for the Town.

Bridgeport; Shackleton Point Road - A tributary that flows north and west towards its outlet in Chittenango Creek needs to be excavated. This creek serves as an outlet for drainage systems in both Bridgeport and the Shackleton Point Road area. This tributary crosses 11 parcels and flows 16,000 feet in the section that needs improvement. At \$3 per foot, this project would cost \$48,000. There is some resistance from one landowner who would need to grant permission. Money has not been appropriated. Work would be done by a private contractor. This is a Low Priority for the Town.

Fisher Bay, Woods Road, Damon Point Road, Tyler Road - All of these locations would benefit from the construction of sanitary sewers. Engineering studies on the cost of these sewers between Bridgeport and Lakeport and south along Bridgeport-Kirkville Road have been conducted. Cost would be \$15 million. The project will be conducted in phases utilizing a combination of local taxes and State grants. This is a High Priority for the Town.

Chittenango Creek Outlet - Houses in this area would benefit from having their utilities elevated above the 100 year flood elevation. Estimated cost is \$5,000 per house. This is the responsibility of the homeowner. This is a Low Priority for the Town.

### Prioritization

The STAPLEE process is the means by which proposed mitigation actions are prioritized for a community. The STAPLEE process utilizes the following criteria:

- **Social:** Will this action be acceptable to the community and individuals affected?
- **Technical:** Is the action a long term technically feasible solution with little or no secondary impacts?
- **Administrative:** Are the staff and funding available to implement and maintain the action?  
NOTE: Inadequate resource did not eliminate consideration of an action.
- **Political:** Is the action supported by political leaders and the public?
- **Legal:** Does the municipality have the legal authority to implement the proposed action?
- **Economic:** Is this action a cost effective method for providing hazard mitigation and community benefits?
- **Environmental:** Is this action consistent with community environmental goals?

The following table uses the STAPLEE System to rate proposed mitigation actions.

+ 1 is Favorable, -1 is Unfavorable, N is Neutral or Not Applicable

A Score of 6 -7 is a high priority, 3-5 is a medium priority, 2 or less is a low priority

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Proposed Mitigation Action								
	Soc	Tech	Admin	Polit	Legal	Econ	Enviro	Score
Chittenango Creek Log Jam Removal Program	+1	+1	+1	+1	-1	+1	+1	5
Raise Elevation of Houses above Flood Elevation, Marsh Mills Road	+1	+1	+1	+1	-1	+1	+1	5
Tributary Excavation in Bridgeport/ Shackleton Point Area	+1	+1	+1	+1	-1	+1	+1	5
Raise utilities above 100 year flood plain elevation	+1	+1	+1	+1	-1	+1	+1	5

## Plan Monitoring and Update

The Madison County Office of Emergency Preparedness will be responsible for monitoring the status of the County Hazard Mitigation Plan and all of the subsections of the plan specific to local municipalities. During the first quarter of every calendar year, the Emergency Preparedness Director will (most likely by e-mail) contact the Town of Sullivan's Highway Superintendent and submit a copy of the evaluation form. The Town's Highway Superintendent will complete and return this form within 10 business days.

During the second quarter of the year, the County Emergency Preparedness Director, will prepare an annual summary report for progress in implementing the County Hazard Mitigation Plan. Included in this plan will be the following:

- A summary and analysis of all disasters that have struck Madison County during the previous calendar year,
- a gap analysis for the hazard mitigation plan for any disasters that occurred during the previous calendar year,
- a listing of funding opportunities made available from FEMA and SEMO during the 12 months prior to the annual summary report,
- a summary of the progress that has been made towards accomplishing mitigation measures during the previous calendar year,
- problems encountered in implementing the plan,
- And, recommendations for changes to the Hazard Mitigation plan.

A copy of this report will be sent to the Town's Highway Superintendent and will be posted on the Madison County Website. Public Comment will be accepted based on review of these reports and the County's Plan available on this web site.

Every five years after the plan receives its FEMA approval and adoption by the Sullivan Town Board, the County Emergency Management Director will update the County Hazard Mitigation Plan and the Town of Sullivan annex based on reports supplied by the Town's Highway Superintendent and other municipalities, as well as input from the public. This updated plan will be submitted to the Town of Sullivan for approval before being forwarded to FEMA.